FIG. 1

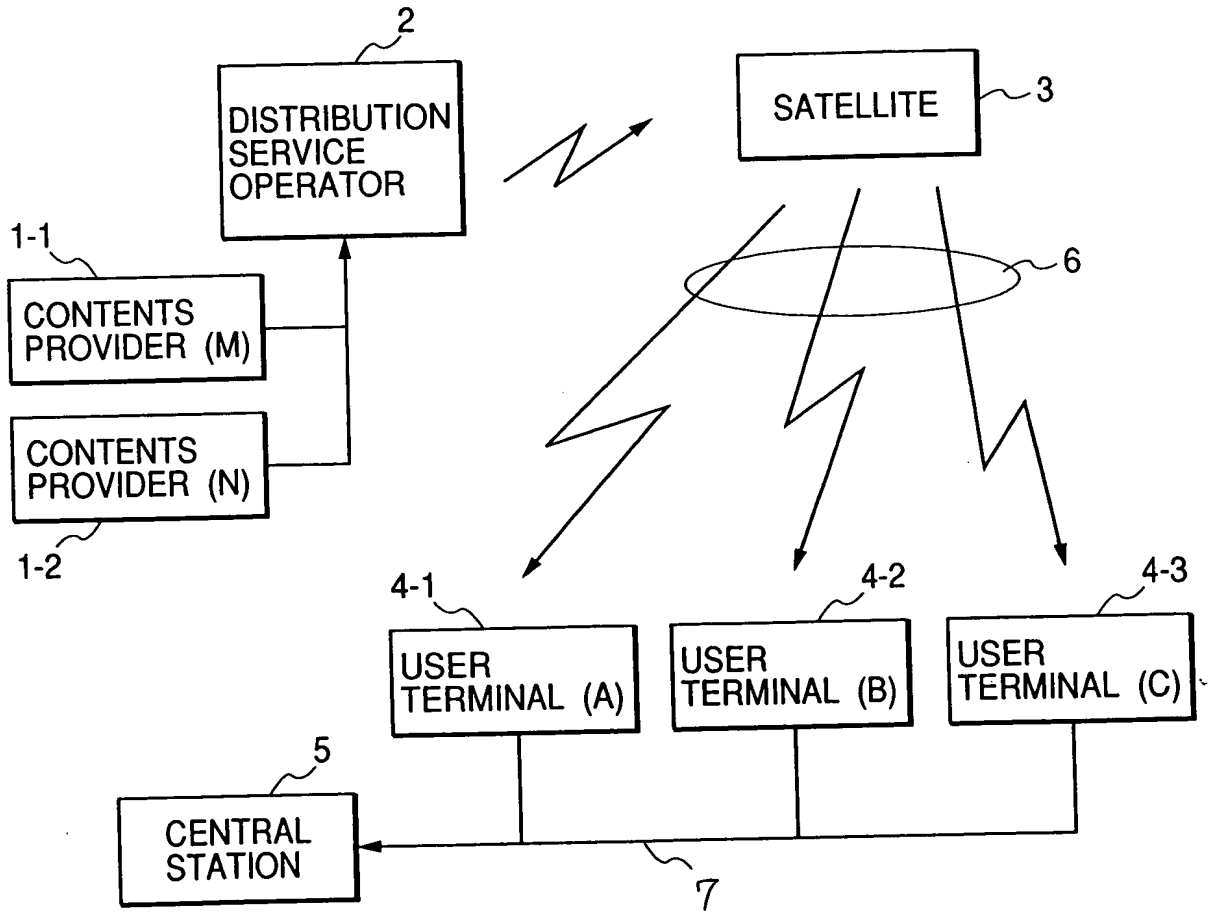
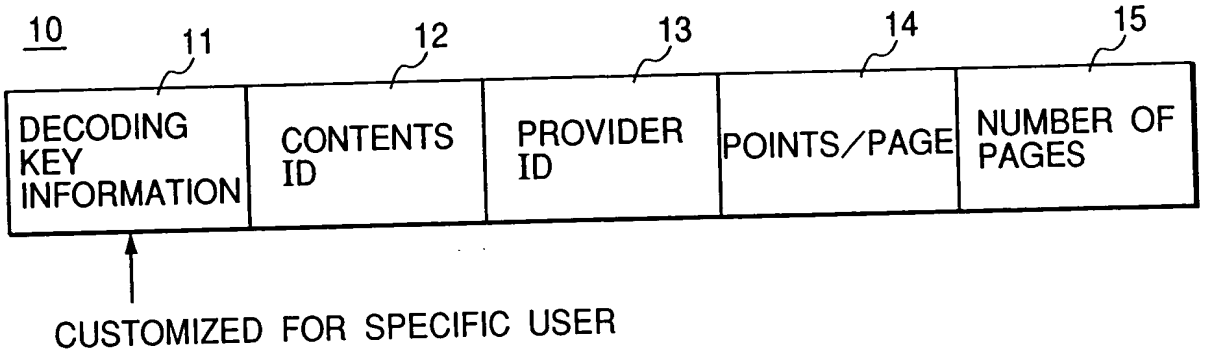

2
DISTRIBUTION SERVICE OPERATOR
SATELLITE
3
1-1
CONTENTS PROVIDER (M)
CONTENTS PROVIDER (N)
1-2
6
4-1
USER TERMINAL (A)
4-2
USER TERMINAL (B)
4-3
USER TERMINAL (C)
5
CENTRAL STATION
7

FIG. 2


10
11
12
13
14
15
DECODING KEY INFORMATION
CONTENTS ID
PROVIDER ID
POINTS/PAGE
NUMBER OF PAGES
CUSTOMIZED FOR SPECIFIC USER

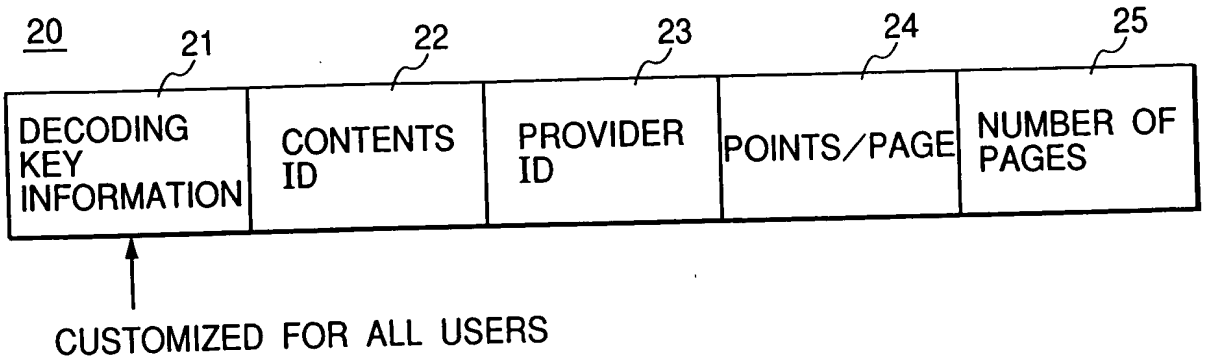

20
21
22
23
24
25
DECODING KEY INFORMATION
CONTENTS ID
PROVIDER ID
POINTS/PAGE
NUMBER OF PAGES
CUSTOMIZED FOR ALL USERS

FIG. 3

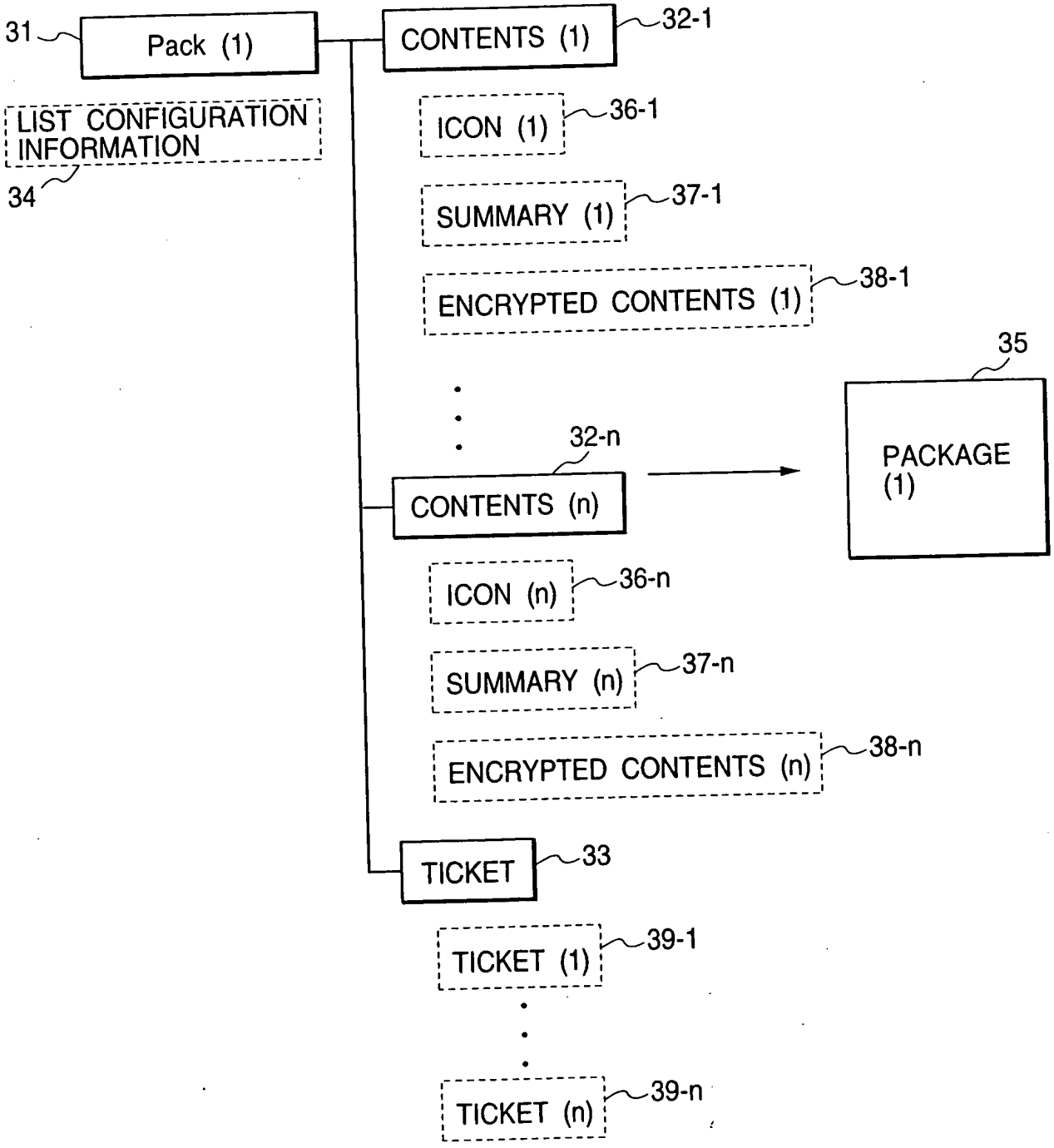

31
Pack (1)
LIST CONFIGURATION INFORMATION
34
CONTENTS (1)
32-1
ICON (1)
36-1
SUMMARY (1)
37-1
ENCRYPTED CONTENTS (1)
38-1
35
PACKAGE (1)
32-n
CONTENTS (n)
ICON (n)
36-n
SUMMARY (n)
37-n
ENCRYPTED CONTENTS (n)
38-n
TICKET
33
TICKET (1)
39-1
TICKET (n)
39-n

FIG. 4

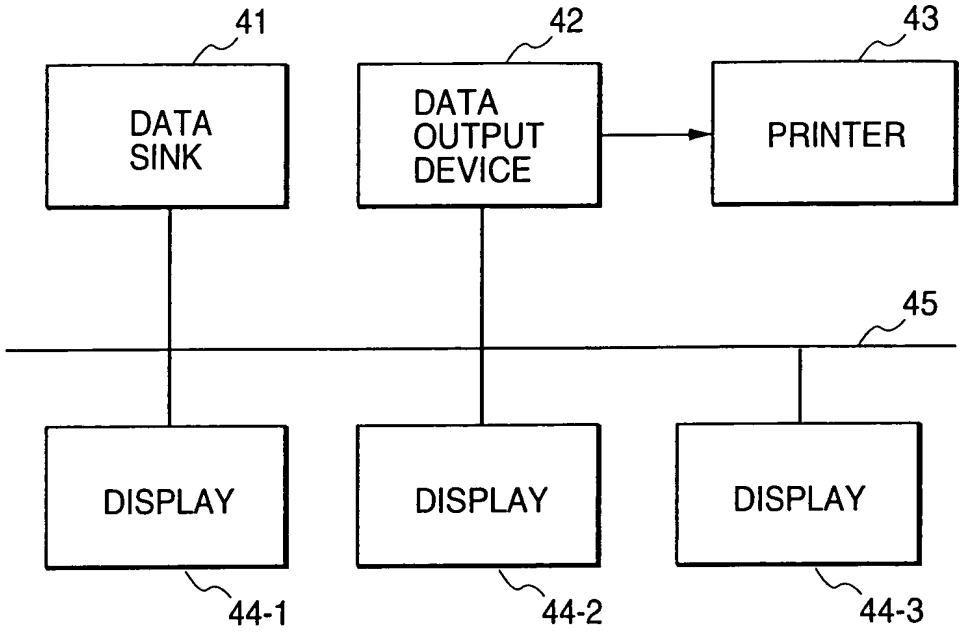

41
42
43
DATA SINK
DATA OUTPUT DEVICE
PRINTER
45
DISPLAY
DISPLAY
DISPLAY
44-1
44-2
44-3

FIG. 5

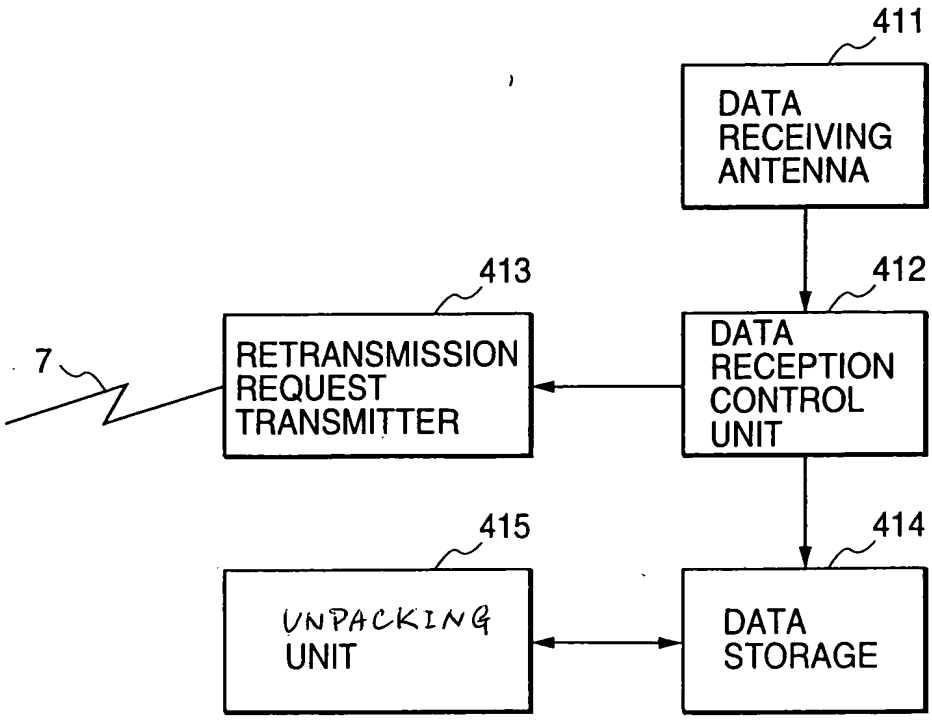

411
DATA RECEIVING ANTENNA
413
412
7
RETRANSMISSION REQUEST TRANSMITTER
DATA RECEPTION CONTROL UNIT
415
414
UNPACKING UNIT
DATA STORAGE

FIG. 6

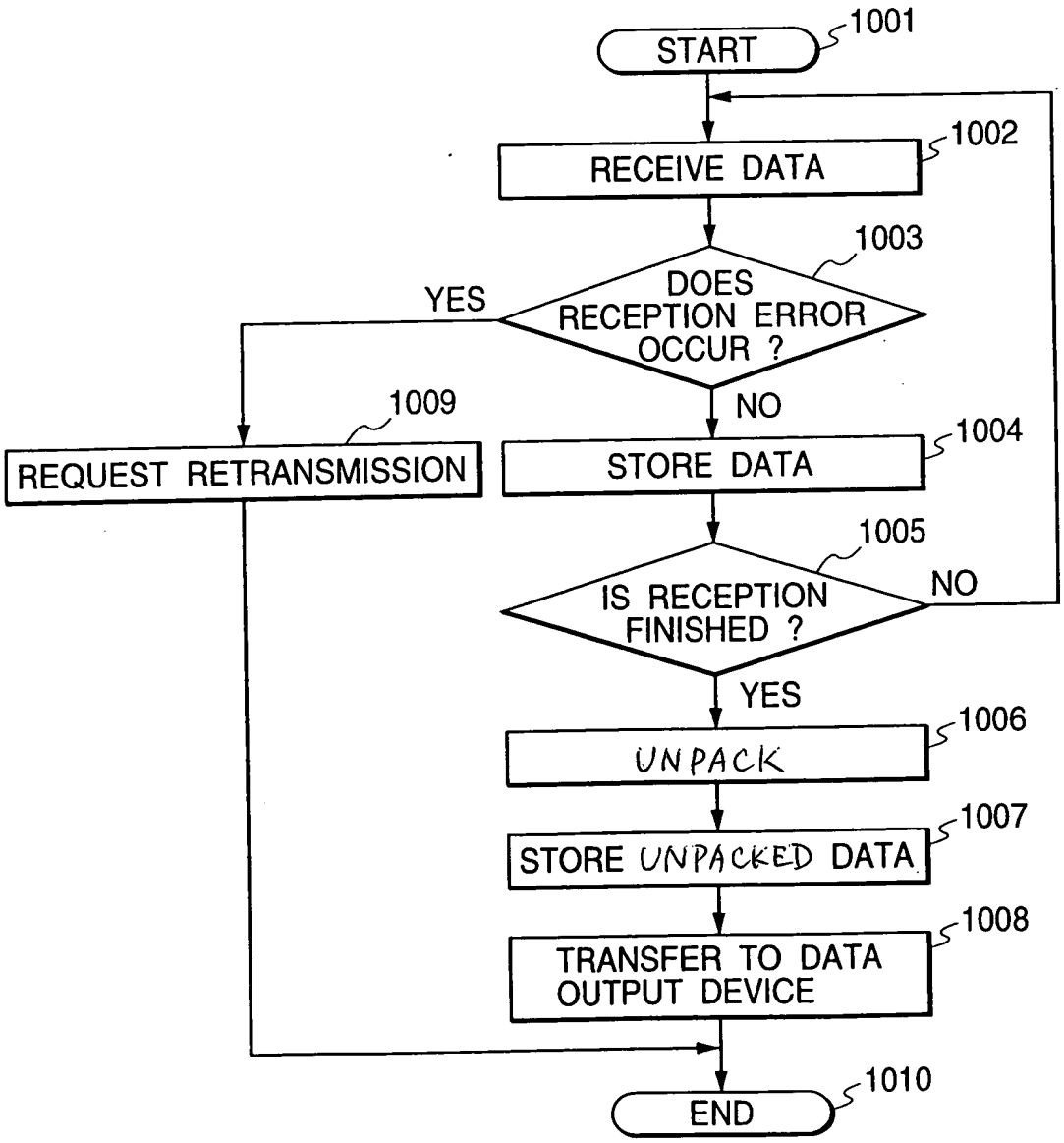

START
1001
RECEIVE DATA
1002
DOES RECEPTION ERROR OCCUR ?
1003
YES
NO
REQUEST RETRANSMISSION
1009
STORE DATA
1004
IS RECEPTION FINISHED ?
1005
NO
YES
UNPACK
1006
STORE UNPACKED DATA
1007
TRANSFER TO DATA OUTPUT DEVICE
1008
END
1010

FIG. 7

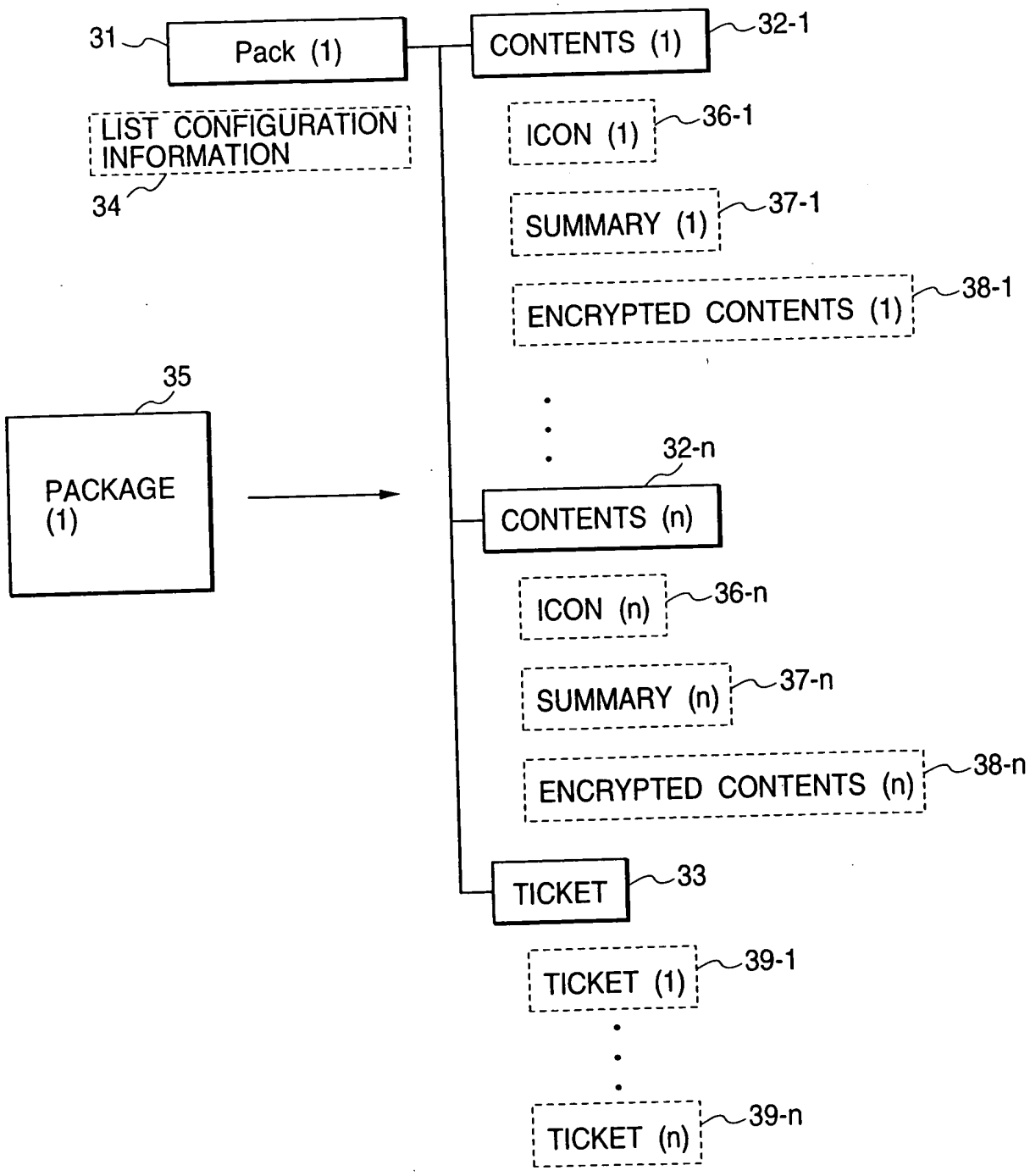

31
Pack (1)
LIST CONFIGURATION INFORMATION
34
CONTENTS (1)
32-1
ICON (1)
36-1
SUMMARY (1)
37-1
ENCRYPTED CONTENTS (1)
38-1
35
PACKAGE (1)
32-n
CONTENTS (n)
ICON (n)
36-n
SUMMARY (n)
37-n
ENCRYPTED CONTENTS (n)
38-n
TICKET
33
TICKET (1)
39-1
TICKET (n)
39-n

FIG. 8

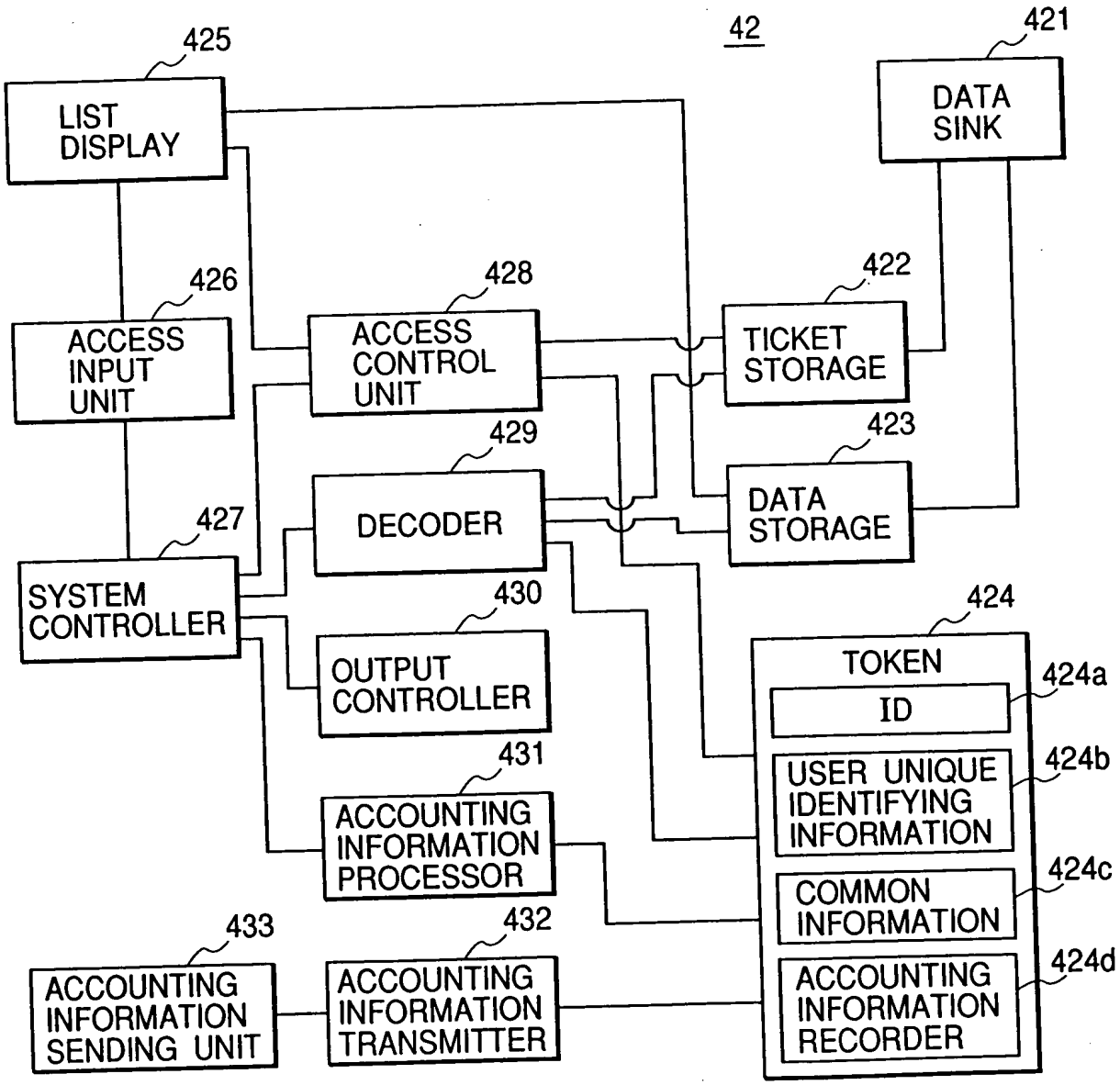

42
425
LIST DISPLAY
421
DATA SINK
426
ACCESS INPUT UNIT
428
ACCESS CONTROL UNIT
422
TICKET STORAGE
429
DECODER
423
DATA STORAGE
427
SYSTEM CONTROLLER
430
OUTPUT CONTROLLER
424
TOKEN
424a
ID
431
ACCOUNTING INFORMATION PROCESSOR
424b
USER UNIQUE IDENTIFYING INFORMATION
424c
COMMON INFORMATION
433
ACCOUNTING INFORMATION SENDING UNIT
432
ACCOUNTING INFORMATION TRANSMITTER
424d
ACCOUNTING INFORMATION RECORDER

FIG. 9

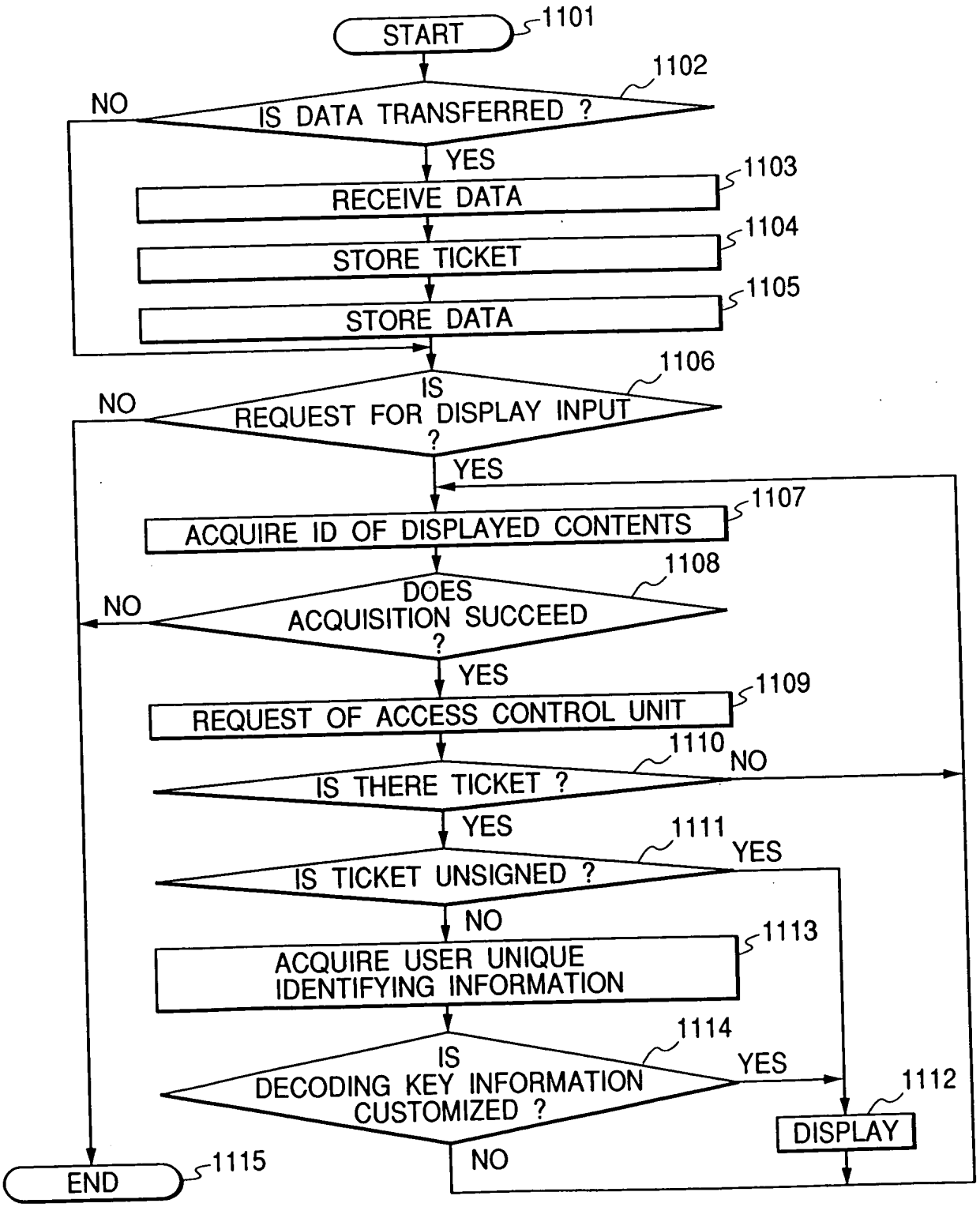

START
1101
1102
IS DATA TRANSFERRED ?
NO
YES
1103
RECEIVE DATA
1104
STORE TICKET
1105
STORE DATA
1106
IS REQUEST FOR DISPLAY INPUT ?
NO
YES
1107
ACQUIRE ID OF DISPLAYED CONTENTS
1108
DOES ACQUISITION SUCCEED ?
NO
YES
1109
REQUEST OF ACCESS CONTROL UNIT
1110
IS THERE TICKET ?
NO
YES
1111
IS TICKET UNSIGNED ?
YES
NO
1113
ACQUIRE USER UNIQUE IDENTIFYING INFORMATION
1114
IS DECODING KEY INFORMATION CUSTOMIZED ?
YES
NO
1112
DISPLAY
END
1115

FIG. 10

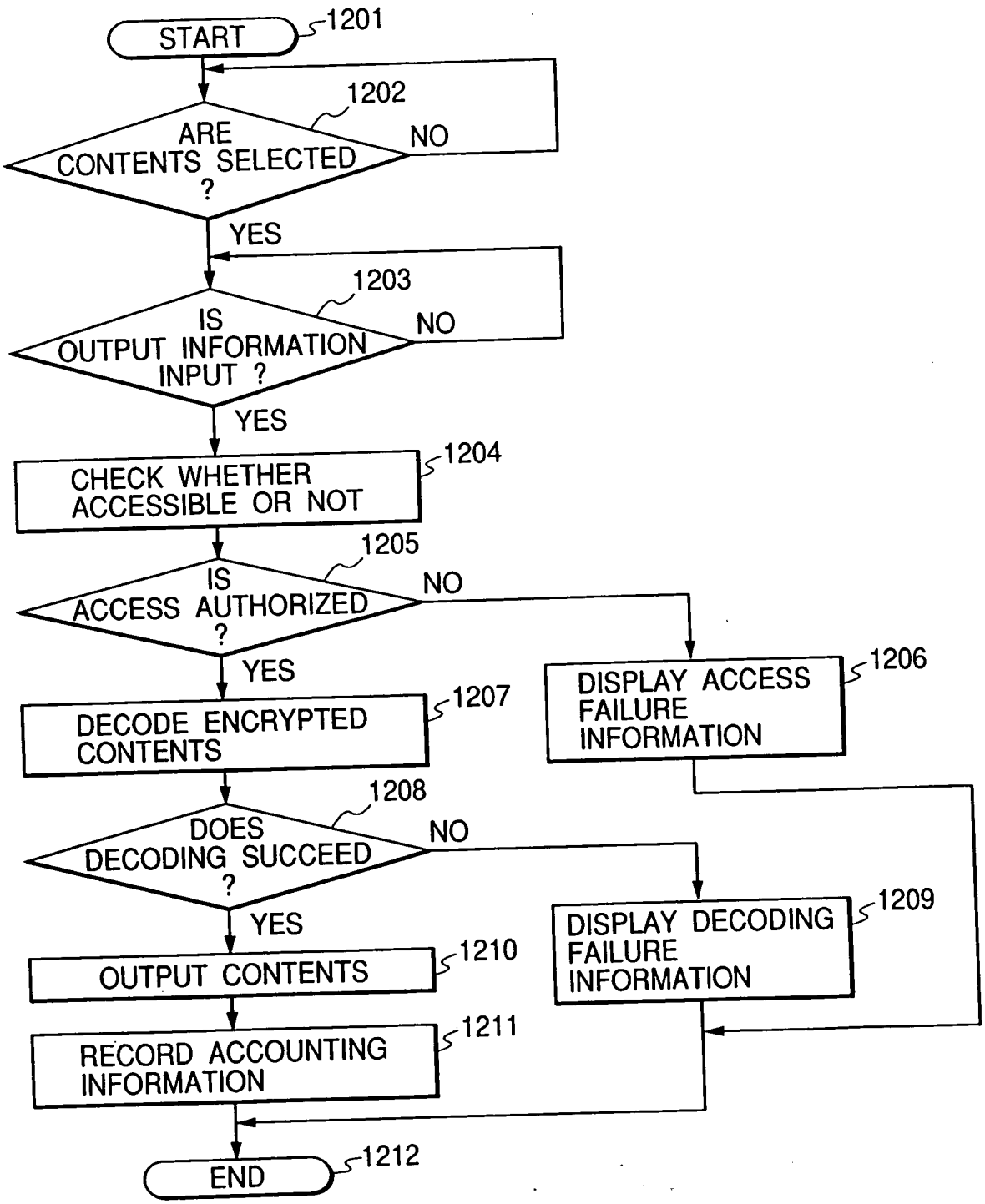

START
1201
ARE CONTENTS SELECTED ?
1202
NO
YES
IS OUTPUT INFORMATION INPUT ?
1203
NO
YES
CHECK WHETHER ACCESSIBLE OR NOT
1204
IS ACCESS AUTHORIZED ?
1205
NO
YES
DECODE ENCRYPTED CONTENTS
1207
DISPLAY ACCESS FAILURE INFORMATION
1206
DOES DECODING SUCCEED ?
1208
NO
YES
OUTPUT CONTENTS
1210
DISPLAY DECODING FAILURE INFORMATION
1209
RECORD ACCOUNTING INFORMATION
1211
END
1212

FIG. 11

NAME	REMARKS
ID	ID USED FOR IDENTIFYING ACCOUNTING AND ISSUED BY ACCOUNTING INFORMATION PROCESSOR
CONTENTS ID	ID OF UTILIZED CONTENTS ACQUIRED FROM TICKET
PROVIDER ID	ID OF CONTENTS PROVIDER ID ACQUIRED FROM TICKET
DATE	DATE OF UTILIZATION ISSUED BY SYSTEM CONTROLLER
CONTENTS TOTAL PAGE NUMBER	NUMBER OF PAGES OF CONTENTS REQUESTED TO BE OUTPUT AND ACQUIRED FROM TICKET
PRINTED NUMBER	NUMBER OF SHEETS ACTUALLY PRINTED BY PRINTER AND ACQUIRED FROM OUTPUT CONTROLLER
NUMBER OF PAGES PRINTED ON ONE SHEET, PAPER SIZE	NUMBER OF PAGES PRINTED ON ONE SHEET AND SIZE/DIRECTION OF PRINTED PAPER RESPECTIVELY ACQUIRED FROM OUTPUT CONTROLLER
POINTS/PAGE	NUMBER OF POINTS (OR PRICE) PER PAGE ACQUIRED FROM TICKET
USER ID	USER ID ACQUIRED FROM TOKEN
TERMINATION STATUS	RESULT OF OUTPUT (ERROR INFORMATION) ACQUIRED FROM SYSTEM CONTROLLER

FIG. 12

ID	CONTENTS ID	PROVIDER ID	DATE	CONTENTS TOTAL PAGE NUMBER	PRINTED NUMBER	NUMBER OF PAGES PRINTED ON ONE SHEET, PAPER SIZE	POINTS/ PAGE	USER ID	TERMINATION STATUS
1	N1	N	08/01/1998	5	3	2 PAGES INCREASED	2	A	NORMAL TERMINATION
2	N1	N	08/01/1998	6	3	2 PAGES INCREASED	2	A	NORMAL TERMINATION
3	N1	N	08/02/1998	3	1	2 PAGES INCREASED	2	A	ABNORMAL TERMINATION
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.

FIG. 13

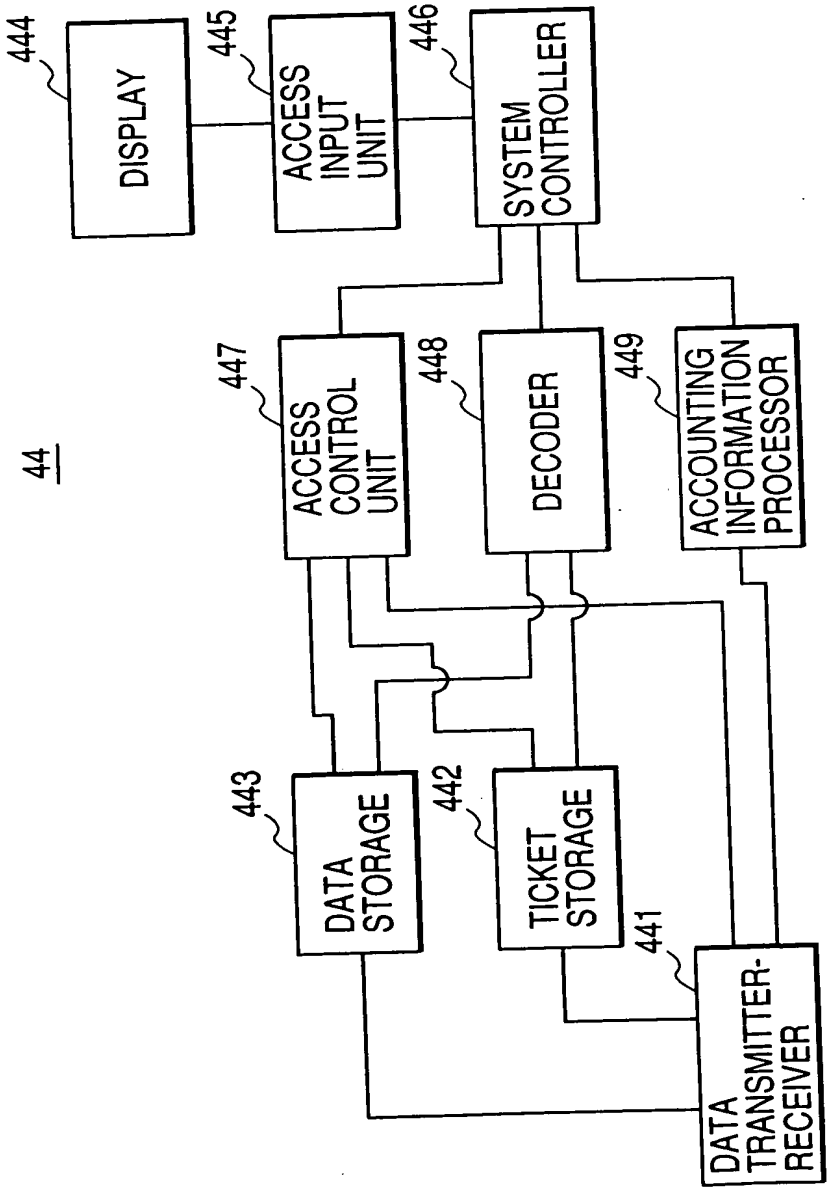

44
444
DISPLAY
445
ACCESS INPUT UNIT
446
SYSTEM CONTROLLER
447
ACCESS CONTROL UNIT
448
DECODER
449
ACCOUNTING INFORMATION PROCESSOR
443
DATA STORAGE
442
TICKET STORAGE
441
DATA TRANSMITTER-RECEIVER

FIG. 14

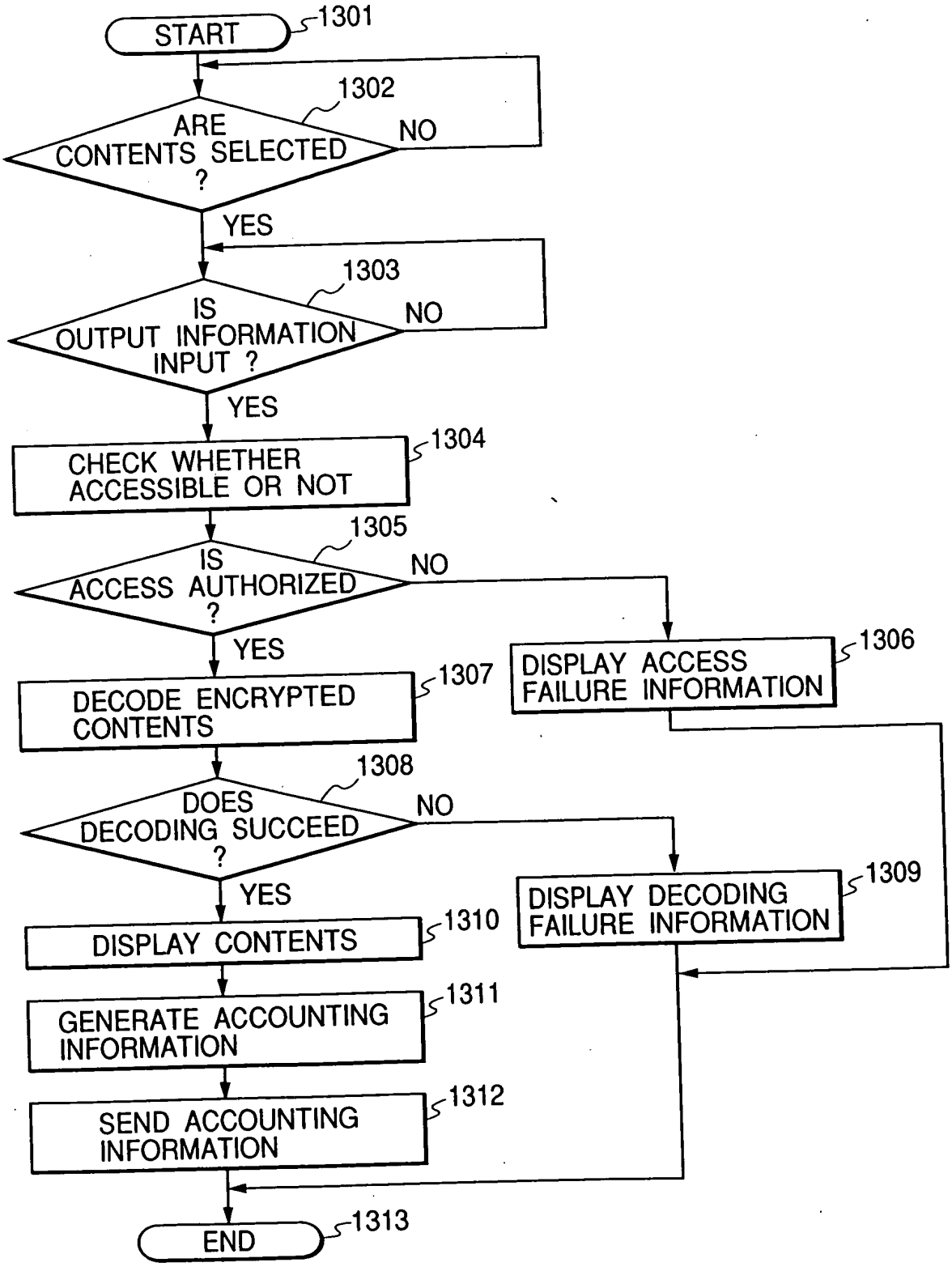

START
1301
ARE CONTENTS SELECTED ?
1302
NO
YES
IS OUTPUT INFORMATION INPUT ?
1303
NO
YES
CHECK WHETHER ACCESSIBLE OR NOT
1304
IS ACCESS AUTHORIZED ?
1305
NO
YES
DISPLAY ACCESS FAILURE INFORMATION
1306
DECODE ENCRYPTED CONTENTS
1307
DOES DECODING SUCCEED ?
1308
NO
YES
DISPLAY DECODING FAILURE INFORMATION
1309
DISPLAY CONTENTS
1310
GENERATE ACCOUNTING INFORMATION
1311
SEND ACCOUNTING INFORMATION
1312
END
1313

FIG. 15

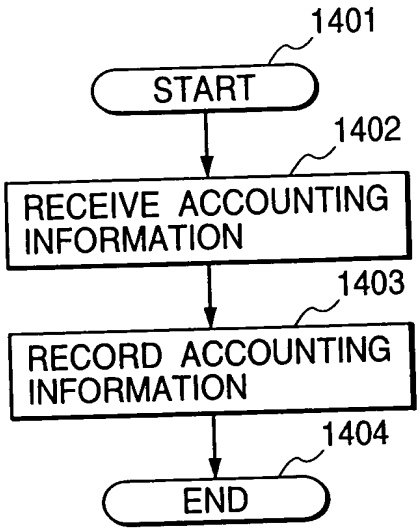

1401
START
1402
RECEIVE ACCOUNTING INFORMATION
1403
RECORD ACCOUNTING INFORMATION
1404
END

FIG. 16

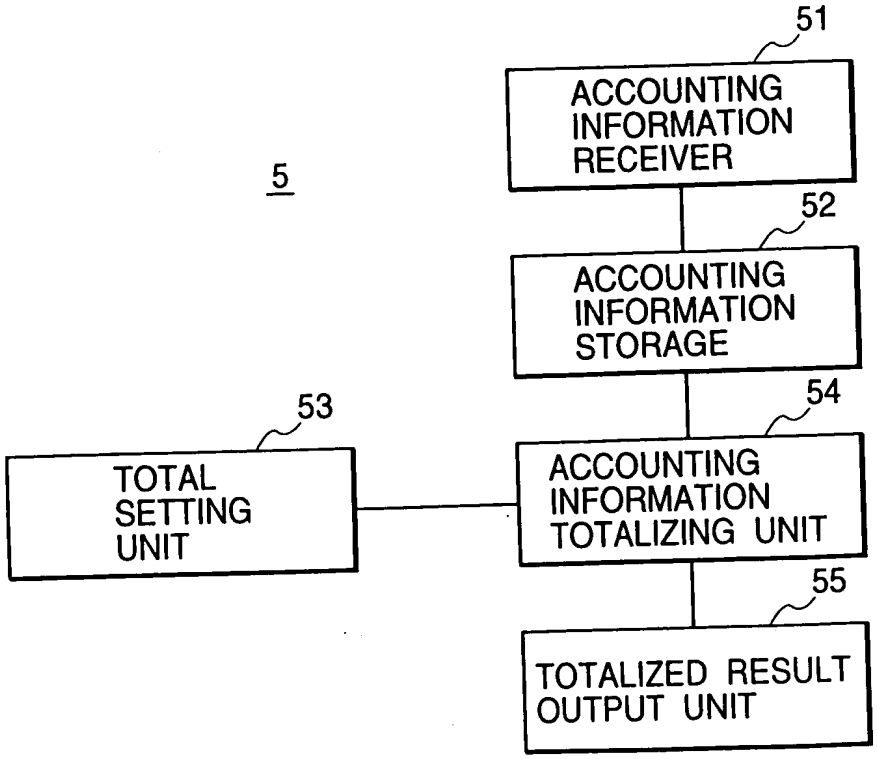

51
ACCOUNTING INFORMATION RECEIVER
5
52
ACCOUNTING INFORMATION STORAGE
53
54
TOTAL SETTING UNIT
ACCOUNTING INFORMATION TOTALIZING UNIT
55
TOTALIZED RESULT OUTPUT UNIT

FIG. 17

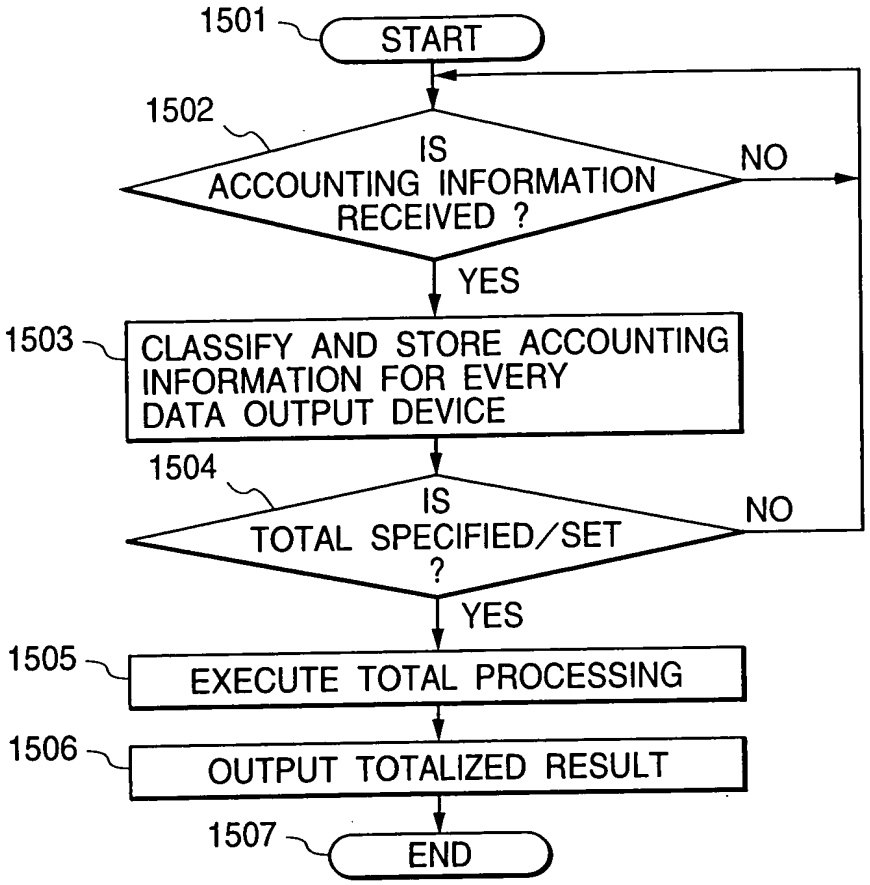


FIG. 18

CONTENTS ID	PROVIDER ID	DATE	NUMBER OF USED PAGES	PRICE (¥)
N1	N	08/01/1998	5	100
N1	N	08/01/1998	6	120
N1	N	08/02/1998	2	40
⋮	⋮	⋮	⋮	⋮